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Dealing with Flood Waters

The transformation of a tranquil river into a destructive flood occurs hundreds of times each year throughout the United States. No area is completely free from the threat of floods. This is certainly true for Midland County. On average, each year over 300,000 Americans are driven from their homes by floods; 200 people are killed; and about \$2 billion worth of property is damaged or destroyed.

Midland County, with its network of rivers and streams, is vulnerable to flooding. The Tittabawassee River is the primary river in the county with the Chippewa, Pine and Salt rivers its major tributaries. Other creeks and streams such as the Snake and Sturgeon also are branches of the Tittabawassee.

Midland typically experiences flooding of low-lying areas in the spring when the ground is saturated with moisture and rainfall runs off into the river system without being absorbed. A similar situation sometimes occurs in late autumn. Also, an unusually large amount of precipitation in a short amount of time, as occurred in September 1986 and April 2013, will cause flooding of the Tittabawassee River and its tributaries.

A watch is maintained on the county's river system by the Department of Emergency Services and local volunteers called "Cooperative Observers."

River assessment information is provided to the National Weather Service River Forecast Center in Minneapolis, MN. The River Forecast Center then produces flood forecasts based on rainfall and river level data received from Midland County. The National Weather Service Forecast Office at White Lake issues flood watches and flood warnings with guidance provided by the River Forecast Center.

- A **FLOOD WATCH** means that conditions within the watch area may lead to flooding and residents should be on the alert for that possibility.
- A **FLOOD WARNING** is issued as an advance notice that a flood is imminent or is in progress at a specific location or river basin.

Early flood warnings provide time for people in threatened areas to prepare and, by preparing, lessen damage from the flood. Residents in low-lying areas have time to move personal property, mobile equipment and livestock to higher ground. Sometimes crops can be harvested in advance of a destructive flood. Emergency services organizations can also begin preparations for response and recovery operations.

- **URBAN FLOODING** is another phenomenon that can occur in areas where natural cover has been removed by the construction of buildings, roads and parking lots. Heavy rain can result in flash flooding, inundating cars and causing considerable damage to residential and industrial properties. Streets can become swollen with water and basements can experience flooding. This occurred in Midland in the form of a flash flood on June 21, 1996, when approximately 4 inches of rain was received in a short period of time. As a result, nearly 1,400 homes were damaged by rainwater and/or sewage that had nowhere else to go.

The National Weather Service distributes flood warning information on NOAA Weather Radio. In the Midland area, NOAA Weather Radio can be received on frequency 162.525 MHz.

NOAA Weather Radio provides continuous broadcasts of the latest weather information directly from the National Weather Service Office in White Lake. Taped weather messages are repeated every four to six minutes. The National Weather Service also distributes information to commercial radio and television stations.

For local residents on the Charter Communications System, specific flooding information is broadcast on Midland Government Television (MGTV) channel 188. When the Tittabawassee River comes within four feet of its flood stage in Midland, MGTV will broadcast an hourly update of the river level.

Any street closings due to high water levels are broadcast on MGTV.

Flood information also may be obtained by calling **1-888-TELL-MORE**, which is continually updated throughout the event.

Specific emergency instructions and informational updates also are provided to local radio, television and newspapers by the Department of Emergency Services.

Flood Safety Rules

Before The Flood

- Keep materials on hand such as sandbags, plywood, plastic sheeting and lumber.
- Keep first aid supplies on hand.
- Keep a stock of food that requires little or no cooking and no refrigeration; electric power may be interrupted.
- Keep a portable radio, emergency cooking equipment, lights and flashlights in working order.
- Know if you are located in the flood plain or not.
- Avoid areas subject to flooding.
- Do not attempt to cross flowing water.
- Do not attempt to drive over a flooded road - you can be stranded or trapped. The depth of water is not always obvious.

After The Flood

- Do not use fresh food that has come in contact with flood waters.
- Boil drinking water before using.
- Do not visit disaster areas; your presence may endanger you or hamper emergency response efforts.
- Do not handle live electrical equipment in wet areas; electrical equipment should be checked and dried before being returned to service.
- Stay tuned to local radio and television for specific information concerning such things as shelter, food, clothing and other